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Notice of Allowability	Application No.	Applicant(s)	
	09/668,388	TAKEDA ET AL.	
	Examiner	Art Unit	
	Douglas S. Lee	2125	

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 2/23/05.
2. The allowed claim(s) is/are 1-17.
3. The drawings filed on 25 September 2000 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 1) hereto or 2) to Paper No./Mail Date _____.
(b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of
 Paper No./Mail Date _____.
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
 Paper No./Mail Date 1/11/05
4. Examiner's Comment Regarding Requirement for Deposit
 of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
 Paper No./Mail Date _____.
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

DETAILED ACTION

Response to Amendment

1. Applicant's arguments with respect to claims 1-17 filed 2/23/2005 have been fully considered and they are persuasive.

Examiner's Statement of Reasons for Allowance

1. Claims 1-17 are allowable over the prior of records.
2. The following is an Examiner's statement of reasons for the indication of allowable subject matter: Regarding claims 1, 3, and 10-11, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending apparatus, fails to teach in part the steps of a local coordinate system representing a stable die of the bending apparatus within the overall coordinate system. Regarding claim 4, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending apparatus, fails to teach in part the steps of capturing from a computer-aided design system a shape data specifically a shape of an elongated product. Regarding claims 5-8, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending apparatus, fails to teach in part the steps of determining a geometric position for movable die of the bending apparatus based on a shape data specifying a shape of an elongated product. Regarding claim 9, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending apparatus, fails to teach in part the steps of determining a feed speed for an elongated workpiece which passes through a stable die of the bending apparatus based on a neutral axis. Regarding claims 12 and 13, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending

apparatus, fails to teach in part the steps of determining an angle of torsion per unit length for a unit feed amount specified in a direction of the longitudinal axis based on the shape data.

Regarding claim 14, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending apparatus, fails to teach in part the steps of determining a quantity for an elastic/plastic torsional deformation that is induced in the elongated workpiece, based on the torsional moment. Regarding claim 15, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending apparatus, fails to teach in part the steps of determining a quantity for a torsional variation induced in an elongated workpiece in response to a sectional deformation of the elongated workpiece, wherein the section deformation is induced at an edge of a through hole on at least one of the first and second dies.

Regarding claim 14, the allowability, at least in part, resides in a computer-implemented method of generating a control data for a bending apparatus, fails to teach in part the steps of determining a quantity of a clearance defined between the elongated workpiece and at least one of first and second dies. Regarding claim 17, the allowability, at least in part, resides in a bending apparatus, fails to teach in part a processor unit designed to determine a position for the movable die based on respective local coordinate systems, the local coordinate systems defined on respective cross-sections of an image of the elongated product within the overall coordinate system..

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Conclusion

1. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Douglas Lee, whose telephone number is (571) 272-3745. The examiner can normally be reached on Monday-Friday from 8:00AM- 4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Leo Picard*, can be reached on (571) 272-3749 or via e-mail addressed to [leo.picard@uspto.gov]. The fax number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [doug.lee@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 306-5631.

Douglas Lee

[Signature]
4/21/2005



LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100